FIG.1a

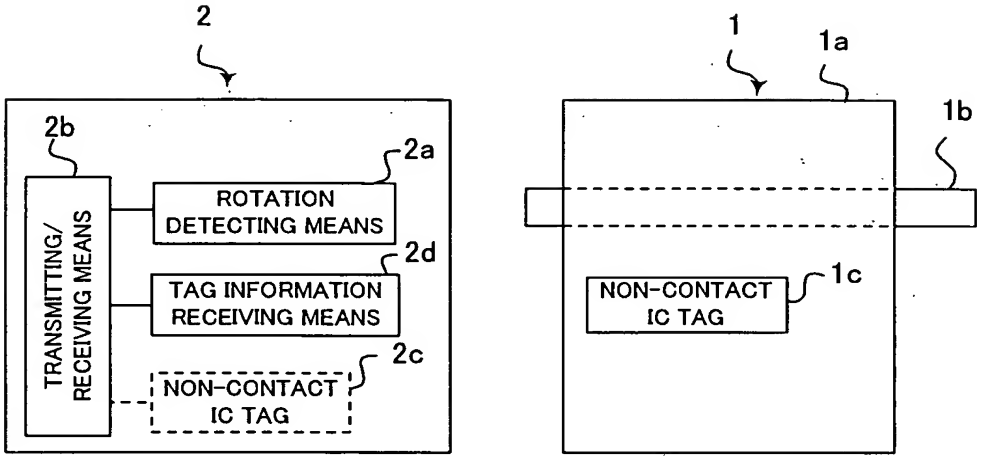



FIG.1b

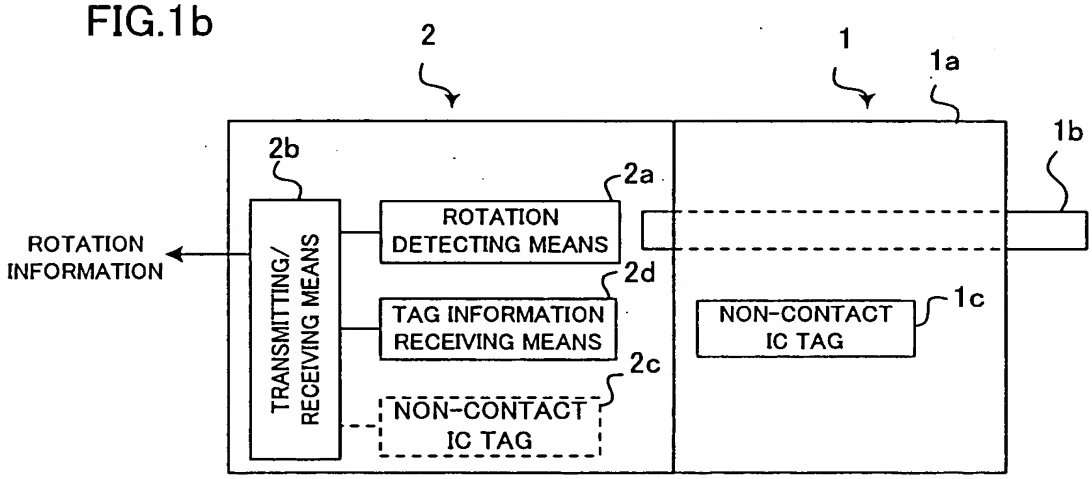



FIG.1c

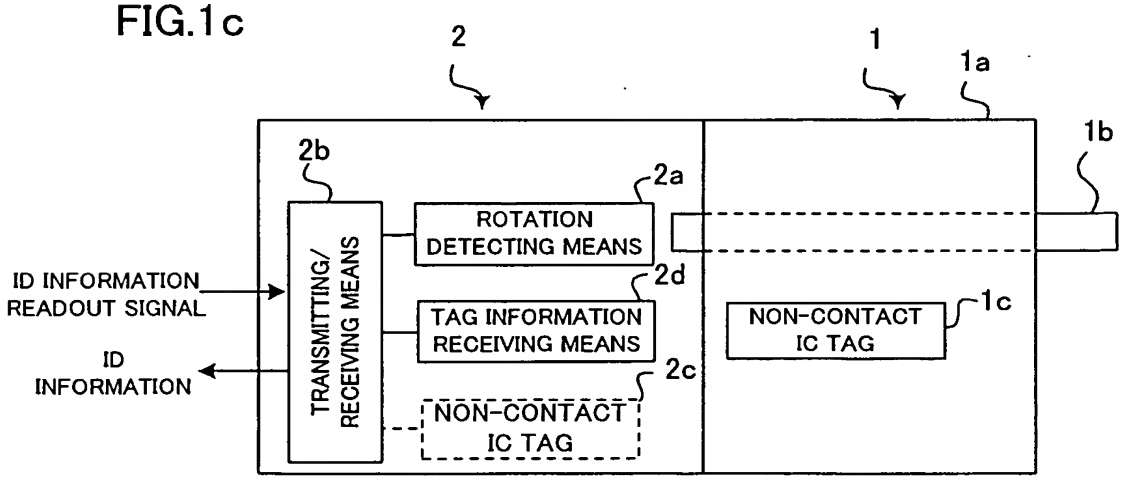


FIG.2a

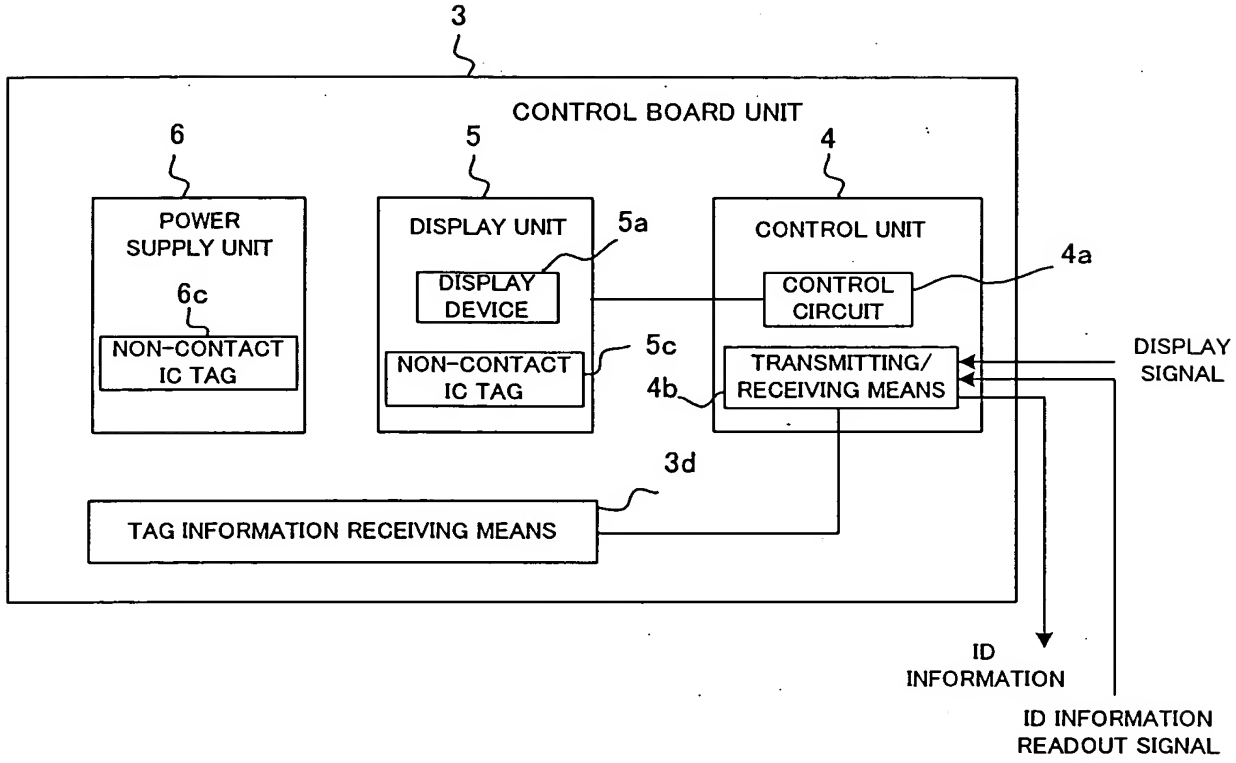

3
CONTROL BOARD UNIT
6
5
4
POWER SUPPLY UNIT
6c
NON-CONTACT IC TAG
DISPLAY UNIT
5a
DISPLAY DEVICE
5c
NON-CONTACT IC TAG
CONTROL UNIT
4a
CONTROL CIRCUIT
4b
TRANSMITTING/ RECEIVING MEANS
DISPLAY SIGNAL
3d
TAG INFORMATION RECEIVING MEANS
ID INFORMATION
ID INFORMATION READOUT SIGNAL

FIG.2b

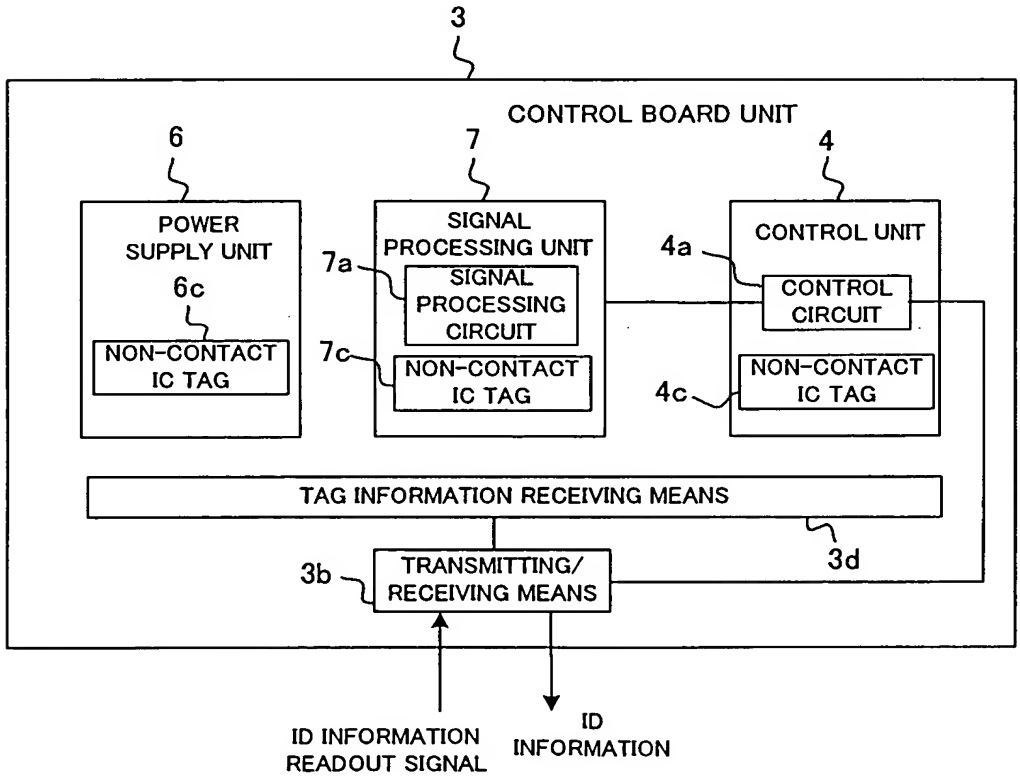

3
CONTROL BOARD UNIT
6
7
4
POWER SUPPLY UNIT
6c
NON-CONTACT IC TAG
SIGNAL PROCESSING UNIT
7a
SIGNAL PROCESSING CIRCUIT
7c
NON-CONTACT IC TAG
CONTROL UNIT
4a
CONTROL CIRCUIT
4c
NON-CONTACT IC TAG
TAG INFORMATION RECEIVING MEANS
3d
3b
TRANSMITTING/ RECEIVING MEANS
ID INFORMATION READOUT SIGNAL
ID INFORMATION

FIG. 3

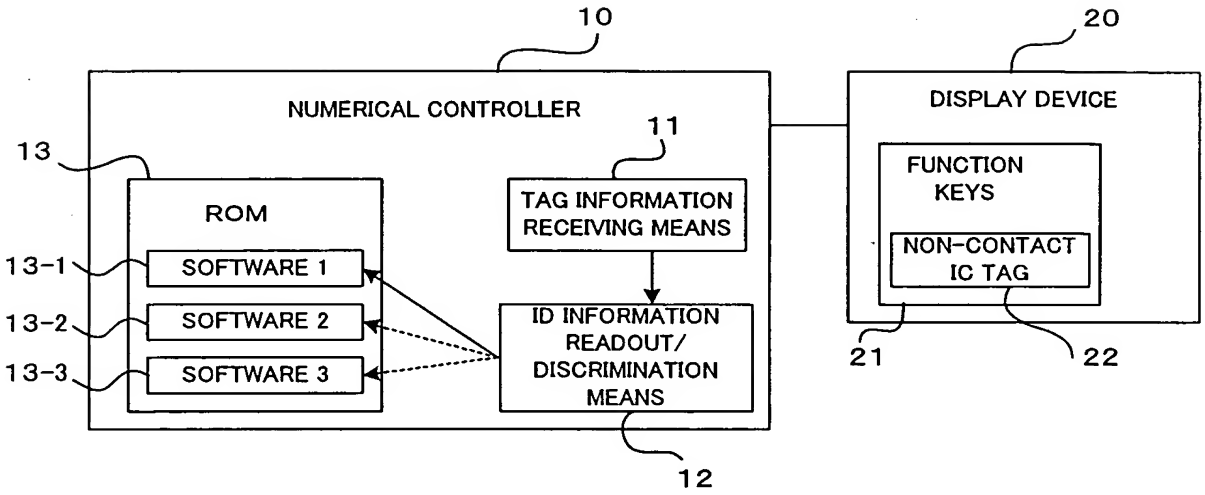

10
NUMERICAL CONTROLLER
13
ROM
13-1
SOFTWARE 1
13-2
SOFTWARE 2
13-3
SOFTWARE 3
11
TAG INFORMATION RECEIVING MEANS
ID INFORMATION READOUT/ DISCRIMINATION MEANS
12
20
DISPLAY DEVICE
FUNCTION KEYS
NON-CONTACT IC TAG
21
22

FIG.4a

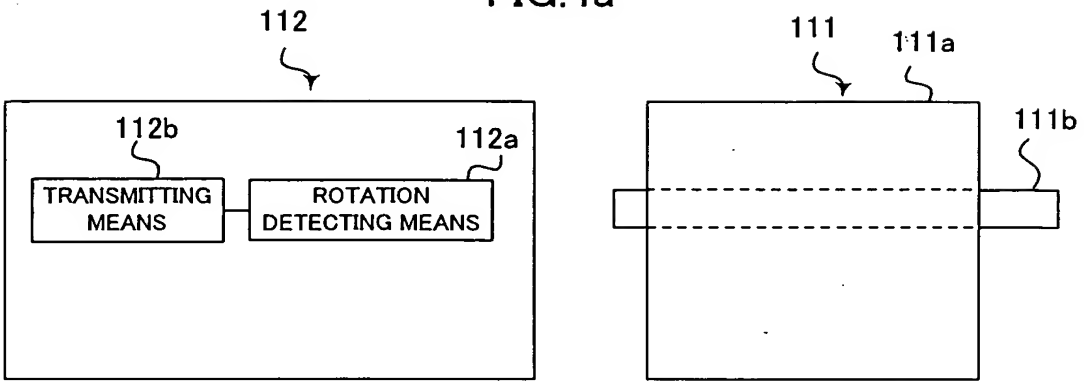

112
112b
112a
TRANSMITTING MEANS
ROTATION DETECTING MEANS
111
111a
111b

FIG.4b

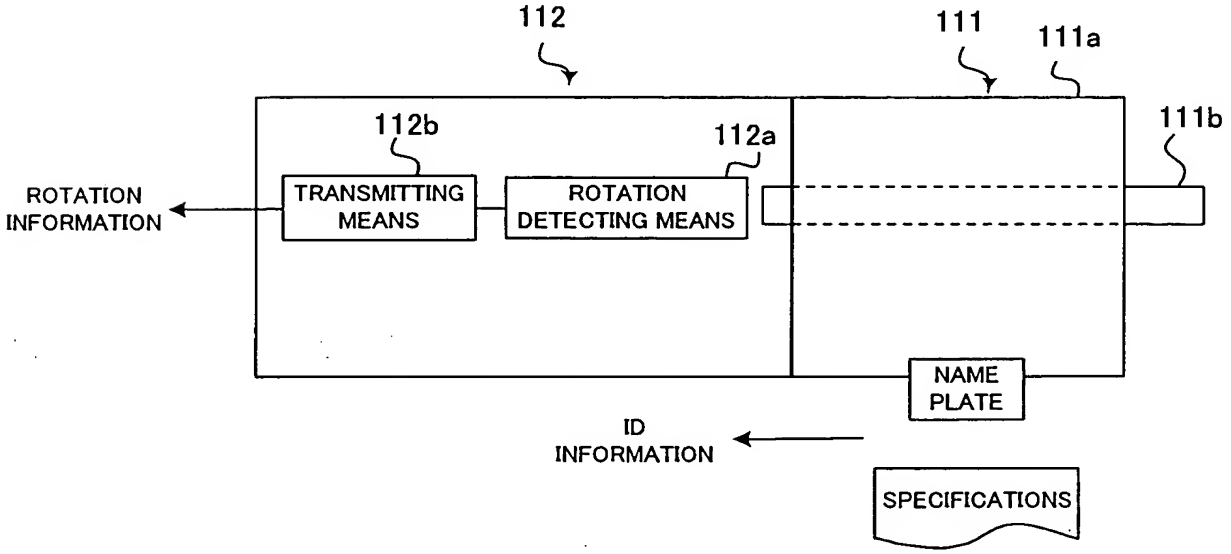

112
111
111a
112b
112a
111b
ROTATION INFORMATION
TRANSMITTING MEANS
ROTATION DETECTING MEANS
NAME PLATE
ID INFORMATION
SPECIFICATIONS

FIG.5a

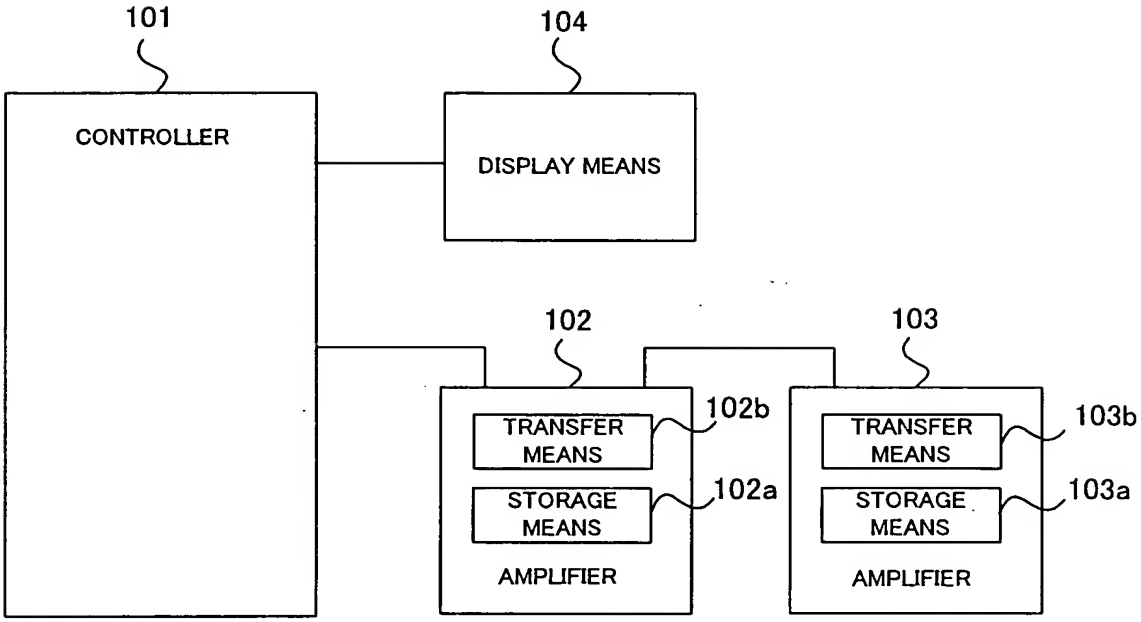
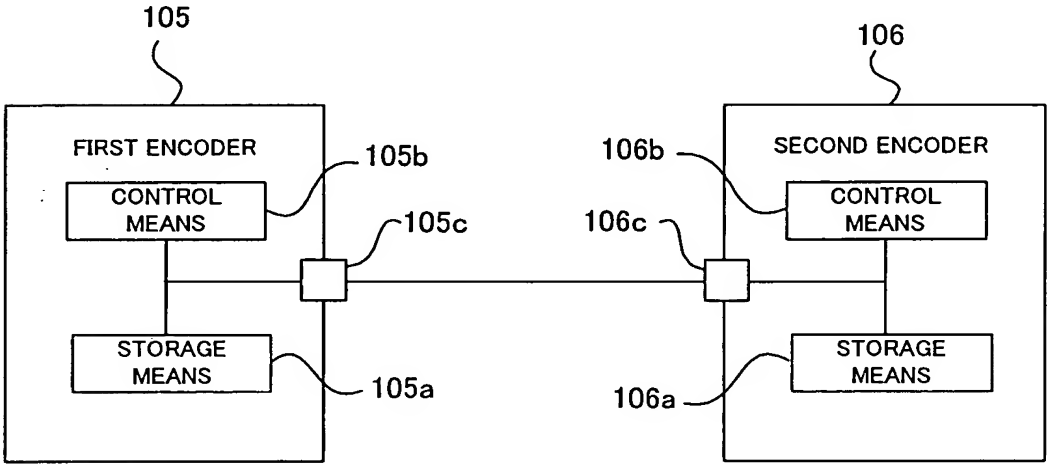

101
104
CONTROLLER
DISPLAY MEANS
102
103
TRANSFER MEANS
102b
STORAGE MEANS
102a
AMPLIFIER
TRANSFER MEANS
103b
STORAGE MEANS
103a
AMPLIFIER

FIG.5b


105
106
FIRST ENCODER
105b
CONTROL MEANS
105c
STORAGE MEANS
105a
106b
SECOND ENCODER
CONTROL MEANS
106c
STORAGE MEANS
106a